I. AMENDMENT

In the Specification:

Pages 49 – 53 line numbers have been added. The specification remains unchanged.

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Respectfully submitted,

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Fig. 38 illustrates an alternative design of support assembly 194 which securely holds two portable LCD control units 184 and 191 for use in a two player game. Support assembly 194 consists of a vertical member 197 mounted at the base to a single horizontal base board which may include a socket (not shown) for receiving vertical member 197.

Fig. 39 illustrates a map view of a video game in which player-controlled character 18 is displayed on TV screen 56 as a running man, viewed (indicated by the short line of dots) from the point of view of "camera" 188. From the point of view of character 18, object 172 is initially viewed from "camera" 173 as described above with reference to Fig. 27. In Fig. 39, a human player can view object 172 from different points of view represented by cameras 175 and 215 and can view object 172 at angles 177 and 216 respectively. The angle 177 or 216 at which object 172 is viewed is variable and is manually controlled by the player. Camera 175/215 may also zoom in or zoom out on object 172 so that object 172 appears larger or smaller on LCD 193. Object 172, which in this example is motorcycle 193, may be displayed on LCD 22 (indicated by the long line of dots) to prevent other players from seeing object 172 on TV screen 56. Object 172 may also be displayed on TV screen 56.

A human player controls movements, directions, zoom, and point-of-view perspectives of cameras 175 or 215 using a directional input control member, such as cross-switch 15 on LCD control unit 184, or joystick 20 on control unit 185 in Fig. 26, or touchpad 24 or touchscreen 23 in control unit 28 in Fig. 3 or similar control members. Object 172 may be viewed from any angle such as 177 or 216 horizontally and in three dimensions from above and from below (not shown), where the viewing angle is centered on or near object 172 or any other object selected by the player. The point of view of camera 175/215 may move around object 172 so that LCD 22 displays object 172 from many different points of view and directions in the simulated three-dimensional world.

Fig. 40 is a memory map of programs for performing functions described above with reference to Fig. 39, and data processed by those programs.

Fig. 41 illustrates a video game in which two or more players can trade tools and other objects they have acquired during the game; for example, a key for opening a door or treasure chest in the simulated world, scissors for cutting a rope to a required length, reward items such as coins, and other objects. A picture menu or word menu of objects controlled by each player is displayed on their respective LCD control units 44 and 47, or on TV 11. Each player selects one or more objects they are offering to trade and these objects may be displayed on TV screen or video monitor 56 or on other player's LCD control units. Negotiating a trade may be conducted verbally, but when two players reach an agreement, a program in video game console 42 acts as an escrow agent, thereby insuring that each player gives up control of the object they agreed to trade and receives control of the object they expect in return.

As illustrated in the middle of Fig. 41, LCD control units 44 and 47 of players participating in a trade display the objects being traded so that a third or fourth player may not know what objects were traded. If two players approve of trading the displayed objects by manipulating control members on their respective hand-held control units, a program in the console system closes the trade by updating game records to reflect the change of ownership and displays on LCD control units 44 and 47 a picture of the object received by each trader, as illustrated at the bottom of Fig. 41.

Fig. 42 is a three dimensional graph illustrating cartesian coordinates (X_1 Y_1 Z_1) of an exemplary camera 175 and coordinates (X_2 Y_2 Z_2) of an exemplary object 171 being photographed by the simulated camera. See examples in Fig. 29 and 39. Polar coordinates would also be an appropriate equivalent. For

clarity, coordinates are not shown for camera 215 which may be the same as camera 175 but at different location in the generated three dimensional world.

Fig. 43 illustrates an exemplary game playing session in which human game player 10 manipulates control members on control unit 185 while viewing pictures, maps, and other visual images displayed on two or more LCD screens 22 on portable game control units 184 and 191. These control units are connected by cable, wireless, or other data transmission means to game console 42. Player 10 controls character 17 in a simulated three-dimensional world generated by console 42 and transmitted via cable 41 to video display unit 11 for display on screen 56. Player 10 further manipulates control members on control unit 185 or 184 or 191 to select alternative views of the the simulated world for display on LCD 22 in units 184 or 191 or both. Control unit 185 or 184 or 191 transmits control data to console 42 which responds by transmitting data to control unit 184 or 191 or both that specifies an image for display on the respective LCD screen 22.

By having two or more LCD display devices 22 each showing different locations in the simulated world that are different than the view displayed on video screen 56 and viewed from different angles, the player can select and monitor trouble areas in the simulated world similar to a security guard monitoring closed-circuit television pictures from security cameras. A program in console 42 may cycle through several views selected by player 10 for display in succession on one or more LCD screen 22. A map of one part of the simulated world may be displayed on one LCD control unit, while a picture of a portion of the simulated world is displayed on another LCD 22, and while a different map or a different picture appears on video screen 56. Control units 184 and 191 are supported by table or shelf 187.

Fig. 44 illustrates an exemplary game playing session in which at least two human game players 10 and 12 both control the same player-controlled character, in this example land crawling robot 155. Player 10 manipulates control members on control unit 185 while viewing closeup pictures of his portion of robot 155 displayed on LCD screen 22 on portable game control unit 184. Likewise, player 12 manipulates control members on control unit 192 while viewing closeup pictures of her portion of robot 155 displayed on LCD screen 22 on portable game control unit 191. Each player controls different functions of robot 155.

For example, player 10 may control robot arm movement and movement of caterpillar tread 180 (see Fig. 31), while player 12 may control several gripper 181 movements. Players may specify which controller and which joystick is to be used to control each robot function by inputting settings on the Robot Control Panel described above with reference to Fig. 32.

Player-controlled characters controlled by more than one player may also include animated humanoid, animated animal, animated alien, and other types of characters. One player may control movement of a character on land and inside buildings, while another player may control movement of the same character in tunnels and while the character is flying or swimming, as examples. One player may control a character walking and running and point-of-view selection, while another player may control the same character jumping and fighting and weapon selection, as examples.

Fig. 45 illustrates an exemplary adapter 218 (drawn with thick lines) for use with portable game unit 219 (drawn with thin and dashed lines). Adapter 218 provides additional control members that may be unavailable on portable game unit 219 such as joysticks 20 and 21, button switch 14, adjacent button switches, and touchpad 24. Game unit 219 slides into adapter 218 where it is secured by data communication cable 221 or additional spring

latch (not shown in Fig 45). The totality of functions provided by game unit 219 inside adapter 218 is similar to functions provides by control unit 28 described above with reference to Fig. 3, with the possible exception of touchscreen 23 and speaker 27 which are not shown in Fig. 45. Fig. 45 is divided by orthographic projection into front view in Fig. 45a, top view in Fig. 45b, and right side view in Fig. 45c.

Fig. 46 illustrates electronic circuitry inside adapter 218 described above with reference to Fig. 45. Data communication cable 221 plugs into portable game unit 219 and enters adapter 218 where it connects directly or indirectly to data communication cable 45 which transmits data to video game console 42. Microprocessor 50, which in this example includes on-chip ROM and RAM, collects manually entered control data from switches 14, from analog joysticks 20 and 21, and optionally from touchpad 24. Peripheral interface chip 88 converts this control data from microprocessor 50 to serial data which may be multiplexed with serial data from portable game unit 219. The functions of peripheral interface chip 88 and microprocessor 50 may be combined in one chip. Serial data from video game console 42 and cable 45 pass to portable game unit 219 by way of cable 221. Optionally, data from video game console 42 and cable 45 may pass to peripheral interface 88 to enable functions of adapter 218, for example, to enable an LED (not shown) in adapter 218 to indicate that data connections are operational.